

(d) In configuration 2, the moving deformable barrier has the following center of gravity:

X=44.2 inches rear of front axle
Y=0.3 inches left of longitudinal center line
Z=19.7 inches from ground.

(e) The moving deformable barrier has the following moment of inertia:

Pitch=1669 ft-lb-sec²
Roll=375 ft-lb-sec²
Yaw=1897 ft-lb-sec²

[55 FR 45779, Oct. 30, 1990; 56 FR 47011, Sept. 17, 1991, as amended at 57 FR 7558, Mar. 3, 1992; 68 FR 44472, July 29, 2003]

§§ 587.7–587.10 [Reserved]

Subpart C—Offset Deformable Barrier

SOURCE: 65 FR 17199, Mar. 31, 2000, unless otherwise noted.

§ 587.11 [Reserved]

§ 587.12 Incorporation by reference.

Society of Automotive Engineers (SAE) Recommended Practice J211/1 Rev. MAR 95, Instrumentation for Impact Tests-Part 1—Electronic Instrumentation, is incorporated by reference in § 587.15 in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A copy may be obtained from SAE at Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096. A copy of the material may be inspected at NHTSA's Docket Section, 400 Seventh Street, S.W., room 5109, Washington, DC, or at the Office of Federal Register, 800 North Capitol Street, N.W., Suite 700, Washington, DC.

§ 587.13 General description.

The offset deformable barrier is comprised of two elements: a fixed rigid barrier and a deformable face (Figure 1). The fixed rigid barrier is adequate to not deflect or displace more than 10 mm during the vehicle impact. The deformable face consists of aluminum honeycomb and aluminum covering.

§ 587.14 Deformable face component dimensions and material specifications.

The dimensions of the deformable face are illustrated in Figure 1 of this subpart. The dimensions and materials of the individual components are listed separately below. All dimensions allow a tolerance of ± 2.5 mm (0.1 in) unless otherwise specified.

(a) Main honeycomb block.

(1) *Dimensions.* The main honeycomb block has a height of 650 mm (25.6 in) (in the direction of honeycomb ribbon axis), a width of 1,000 mm (39.4 in), and a depth of 450 mm (17.7 in) (in the direction of honeycomb cell axis).

(2) *Material.* The main honeycomb block is constructed of the following material. The honeycomb is manufactured out of aluminum 3003, with a foil thickness of 0.076 mm (0.003 in) ± 0.004 mm (0.002 in) a cell size of 19.14 mm (0.75 in), a density of 28.6 kg/m³ (1.78 lb/ft³) ± 2 kg/m³ (0.25 lb/ft³), and a crush strength of 0.342 MPa (49.6 psi) + 0%–10%, measured in accordance with the certification procedure described in § 587.15.

(b) Bumper element honeycomb.

(1) *Dimensions.* The bumper element honeycomb has a height of 330 mm (13 in) (in the direction of honeycomb ribbon axis), a width of 1,000 mm (39.4 in), and a depth of 90 mm (3.5 in) (in the direction of honeycomb cell axis).

(2) *Material.* The bumper element honeycomb is constructed of the following material. The honeycomb is manufactured out of aluminum 3003, with a foil thickness of 0.076 mm (0.003 in) ± 0.004 mm (0.0002 in), a cell size of 6.4 mm (0.25 in) ± 1 mm (0.040 in), a density of 82.6 kg/m³ (5.15 lb/ft³) ± 3 kg/m³ (0.19 lb/ft³), and a crush strength of 1.711 MPa (248 psi) + 0%–10%, measured in accordance with the certification procedure described in § 587.14.

(c) Backing sheet.

(1) *Dimensions.* The backing sheet has a height of 800 mm (31.5 in), a width of 1,000 mm (39.4 in), and a thickness of 2.0 mm (0.08 in) ± 0.1 mm (0.004 in).

(2) *Material.* The backing sheet is manufactured out of aluminum 5251/5052.

(d) Cladding sheet.